



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/581,958

09/20/2006

Poul Erik Jespersen

PATRADE

8746

James C. Wray  
1493 Chain Bridge Road  
Suite 300  
McLean, VA 22101

7590

08/27/2009

EXAMINER

SCRUGGS, ROBERT J

ART UNIT

PAPER NUMBER

3723

MAIL DATE

DELIVERY MODE

08/27/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,958	<b>Applicant(s)</b> JESPERSEN, POUL ERIK	
	<b>Examiner</b> ROBERT SCRUGGS	<b>Art Unit</b> 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 10, 2009 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-9, 10-13, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Platt (1666347) in view of Rosa (6113472) and Heuze (1864823).

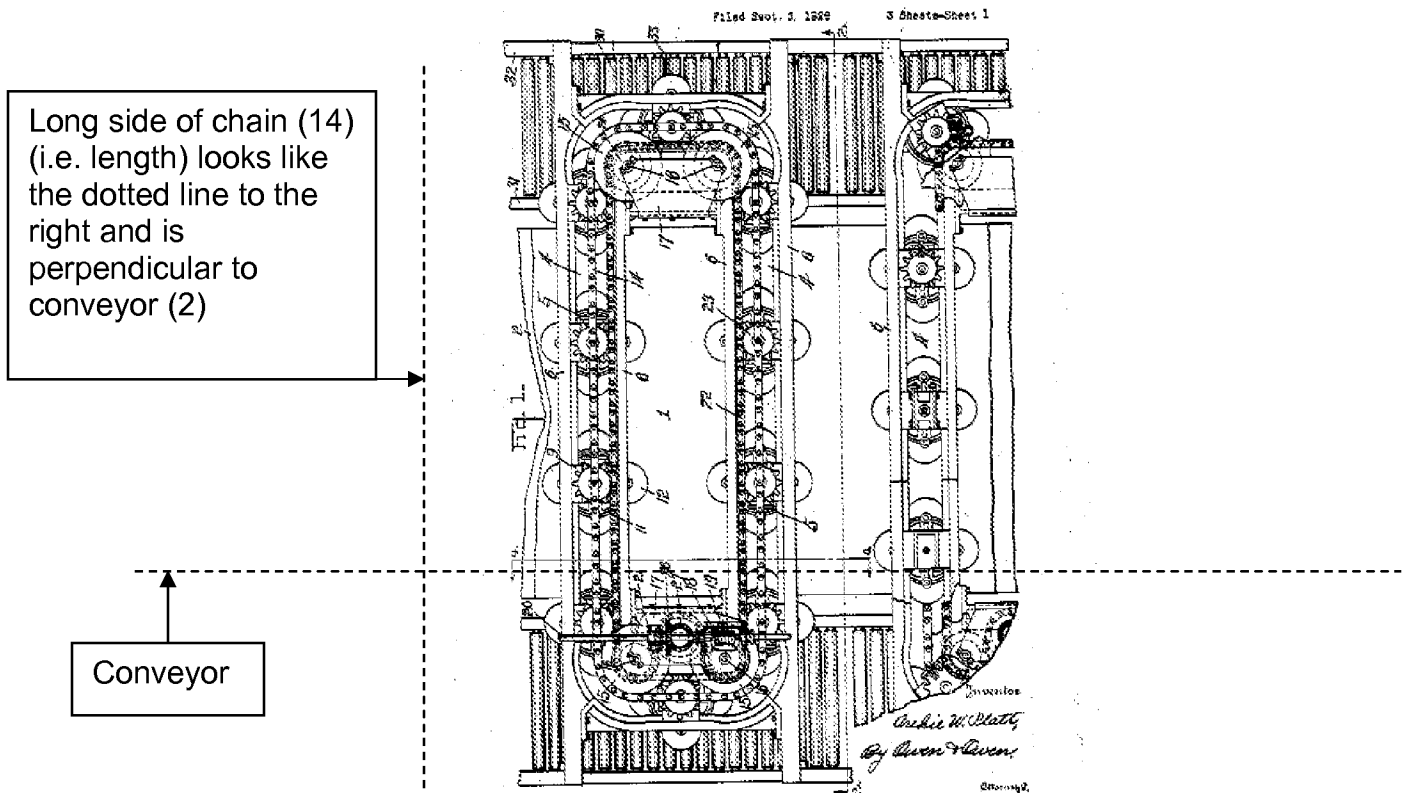
In reference to claim 1 and 6, Platt discloses a grinding apparatus for processing a workpiece (the examiner notes that the type of workpiece used is considered intended use and does not add patentable weight to the claim because as long as the structure of the Platt meets the structure required by the claims the device could obviously be used on any type of workpiece which includes one having edges, roundings and burrs) comprising: a support arrangement (4) holding a number of grinding heads (12) each of

Art Unit: 3723

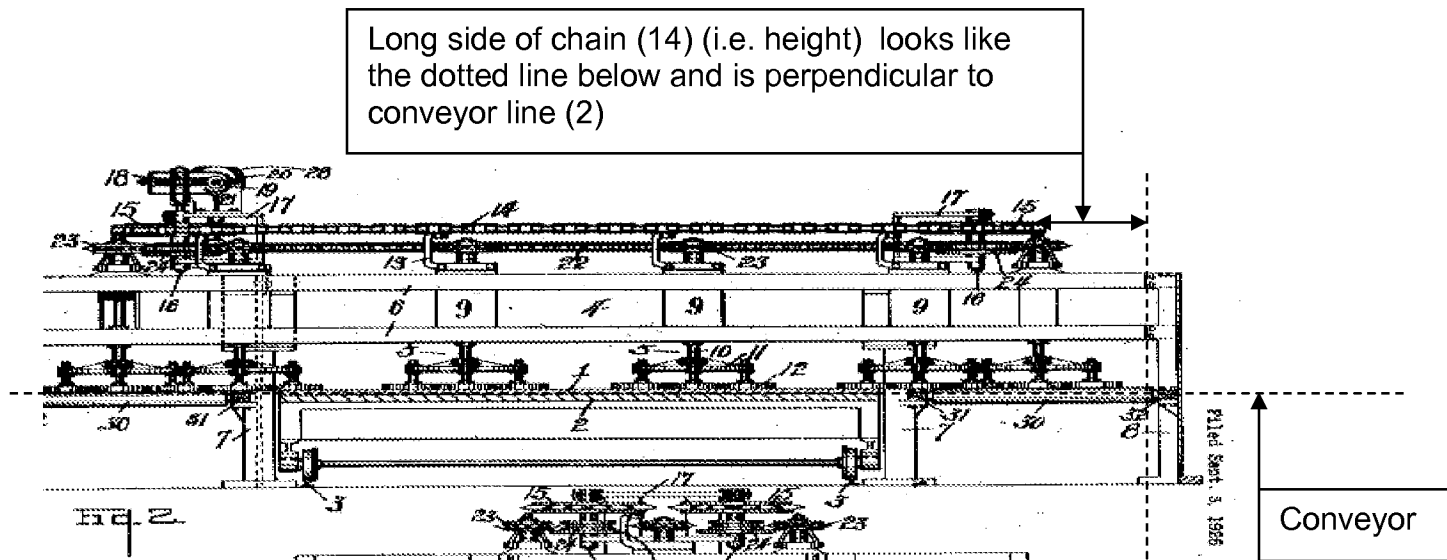
which include grinding elements (i.e. felt), an endless conveyer means formed as drive chain (14) which moves the grinding heads in an annular coarse by at least one driving shaft (20) that is obviously connected to a driving motor (Page 2, Column 1, Lines 1-14), the drive chain being moved in an annular coarse thus the grinding elements move in an epicyclic manner (Figure 1) (Page 2, Column 1, Lines 1-4) and said chain including at least one long side/plane (see figure below) perpendicular to an underlying conveyor (2), but lacks, a grinding motor for each grinding head and specifically disclosing that the driving shaft (20) is driven by a motor. However, Rosa teaches a technique of providing a plurality of grinding heads (4) (Figures 6 and 17) with a motor (82), respectively, that individually rotates said grinding head and wherein said grinding heads are capable of moving vertically up and down with respect to the workpiece (see figure below). One of ordinary skill in the art could have applied the known technique of providing multiple grinding motors that individually drive a grinding head, wherein said grinding heads are capable of moving vertically up and down with respect to the workpiece, as taught by Rosa, in the same way to the single drive chain (22), which drives all the driving heads, of Platt, and the results would have been predictable. In this situation, one could individually maintain constant pressure at different locations thereby removing material from the surface of the workpiece without causing undesired stress. The examiner notes that obviously drive shaft (20) is connected to a motor for rotation otherwise the device would not work properly. Assuming *arguendo*, that a motor is not used than Heuze may be used for teaching that it is old and well known in the art to move a chain (11) (or rope) which holds a plurality of grinding elements (4) by using a

Art Unit: 3723

motor (Page 2, Column 1, Lines 17-21). One of ordinary skill in the art could have applied the known technique of using a motor to actuate a chain, as taught by Heuze, in the same way to the device, of Platt, and the results would have been predictable. In this situation, one could easily move the grinding elements across the workpiece without using manual force.



Or the device can be interpreted as below.

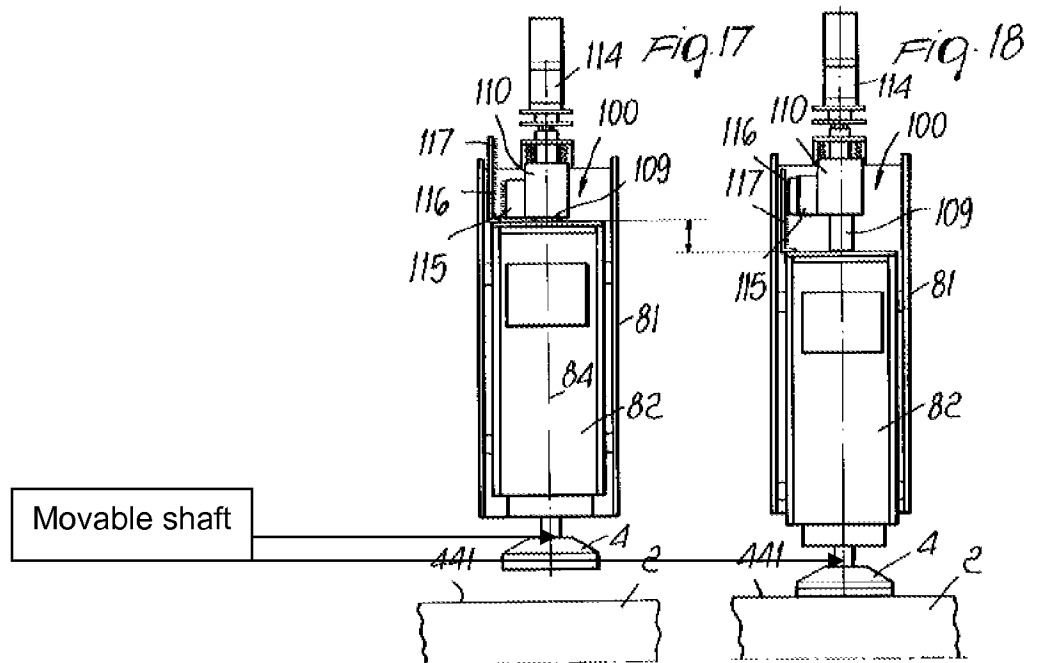


In reference to claims 2 and 10, Platt also discloses using drive chains (14) for engaging drive wheels (15) driven by moving motors (Page 2, Column 1, Lines 1-14) and assuming *arguendo*, that a motor is not used than Heuze may be used for teaching that it is old and well known in the art to move a chain (11) (or rope) which holds a plurality of grinding elements (4) by using a motor (Page 2, Column 1, Lines 17-21) as previously discussed above.

In reference to claims 3, 11 and 18, Rosa also teaches of providing a support arrangement (51) that is adjustable in height by displacing force elements (71) (Column 4, Lines 23-27).

Art Unit: 3723

In reference to claims 4, 12 and 13, Rosa also teaches of providing a movable shaft (see figure below) connected to the grinding motors, such that the grinding elements are movable in a direction perpendicular to the workpiece.



In reference to claim 7, Platt also shows that the conveyor includes a long side perpendicular to the underlying conveyor as previously shown above.

In reference to claims 8 and 9, Platt also discloses that the endless conveyor includes one or more drivers formed as a driving chain (14).

In reference to method claim 17, Platt in view of Rosa disclose providing a support structure, suspending plural grinding heads from the support structure, providing each

Art Unit: 3723

grinding head with a grinding element and an associated grinding motor, driving the grinding element with the grinding motor, coupling an endless conveyor to the support structure in a plane perpendicular to a plane of the support structure, moving the endless conveyor annularly along the support structure with at least one moving motor coupled to the endless conveyor, coupling the plural grinding heads being with the endless conveyor, moving the plural grinding heads transverse of a direction of movement of the work-piece, moving the grinding elements epicyclically across the work-piece during grinding operation, and processing any shape or form of the work-piece as previously discussed above.

4. Claim 5, 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Platt (1666347) in view of Rosa (6113472), Heuze (1864823) and Knost (2985989) and Price et al. (2901868). Platt discloses the claimed invention previously mentioned above, but lacks, having grinding elements that rotate in opposite directions. However, Knost teaches a technique of rotating multiple grinding elements (26-29) in opposite directions (Figure 3). In addition, Price et al. also teach a technique of rotating a row of grinding elements (20) in an opposite direct from a second row of rotating elements (20) (Figure 2) (Column 2, Lines 27-31). One of ordinary skill in the art could have applied to the known technique of rotating rows of grinding elements in opposite directions with respect to each other, as taught by Knost and Price et al., in the same way to the device, of Platt, and the results would have been predictable. In this situation one could



Art Unit: 3723

more effectively grind a workpiece such that it is provided with a true and level surface finish.

5. Claims 15, 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Platt (1666347) in view of Rosa (6113472), Heuze (1864823) and Price et al. (2901868). Platt discloses the claimed invention previously mentioned above, but lacks, having grinding elements that rotate in opposite directions. However, Price et al. also teach a technique of rotating a row of grinding elements (20) in an opposite direct from a second row of rotating elements (20) (Figure 2) (Column 2, Lines 27-31). One of ordinary skill in the art could have applied to the known technique of rotating rows of grinding elements in opposite directions with respect to each other, as taught by Price et al., in the same way to the device, of Platt, and the results would have been predictable. In this situation one could more effectively grind a workpiece such that it is provided with a true and level surface finish.

### ***Response to Arguments***

6. Applicant's arguments filed August 10, 2009 have been fully considered but they are not persuasive.

7. Applicant contends that **“Rosa is non-analogous art and cannot render the present invention obvious because it is neither in the field of Applicant's**

Art Unit: 3723

**endeavor, nor reasonably pertinent to the particular problem with which the applicant was concerned. Rosa should be removed as a reference.”**

a. However, the examiner respectfully disagrees with this statement. Platt uses a single belt and a single motor to rotate multiple grinding elements. Rosa teaches that multiple grinding elements could be rotated individually with individual motors which effectively remove an outer layer from the workpiece while reducing stress in the workpiece (Column 1, Lines 63-65). Both references deal with rotating grinding elements therefore the examiner believes that clearly one of ordinary skill in the art could have substituted a chain for individual motors in order to effectively remove an outer layer from the workpiece while reducing stress in the workpiece.

8. Applicant contends that **“Therefore the references, even in combination, do not teach or suggest epicyclic movement of the grinding elements across an item that includes edges, roundings and burrs. The references thus do not teach or suggest each and every limitation of Claim 1.”**

b. However, the examiner respectfully disagrees with this statement. Platt shows that the grinding elements move in an epicyclic motion which can be seen in Figure 1 therefore the examiner believes the rejection is proper and thus maintained.

2. Applicant contends that **“In contrast, Rosa teaches an apparatus for removing Chromium plating from a roller with a metallic shell galvanieally**

Art Unit: 3723

**covered by a copper layer having a pattern and a protective chromium plating and polishing the roller. The method includes hitting the chromium plating with blunt bodies to break and remove the chromium plating by elastic collapsing of the underlying copper layer. The copper is then smoothed and polished by rotating polishing members that move back and forth as the roller rotates. (Abstract, Figures) When a polishing member hits a spot with stronger resistance, ammeters detect the increased current draw and cause the member to be moved upwards from the surface (Col. 5, line 63 - Col. 6, line 43)."**

a. However, the examiner respectfully disagrees with this statement. The applicant is not considering what the references teach. The fact that Rosa uses a different workpiece is moot because the reference taught of rotating grinding elements with individual motors compared to a single drive mechanism that rotates the grinding elements simultaneously, as taught by Platt, the combination provides individual motor that individually rotate respective grinding elements, which meet the limitations of the claims. The examiner also notes that impermissible hindsight has not been used because sufficient motivation has been established as previously mentioned above therefore the examiner believes the rejection is proper and thus maintained.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT SCRUGGS whose telephone number is (571)272-8682. The examiner can normally be reached on Monday-Friday 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT SCRUGGS/  
Examiner, Art Unit 3723